TOY MANUFACTURERS
OF AMERICA

FINANCIAL AND OPERATING RATIO REPORT

1985

PREPARED BY PROFIT PLANNING GROUP

TOY MANUFACTURERS OF AMERICA

1986
FINANCIAL AND OPERATING
RATIO REPORT
(1985 DATA)

PREPARED BY

JAMIE D. ADAMS
JULIA A. OZENBERGER
PROFIT PLANNING GROUP
1877 BROADWAY, SUITE 501
BOULDER, COLORADO 80302

TABLE OF CONTENTS

	Page
Executive Summary	1
Return on Investment	2
Income Statement	4
Balance Sheet	5
Financing Ratios	6
Productivity Ratios	7
GMROI Analysis	8
Customer Profile	9
Advertising Profile	10
Determinants of Profitability	11
An Action Plan for Improving Profitability	12
Analysis by Type of Firm	14
Quarterly Information	16
Operating Trends	17

EXECUTIVE SUMMARY

The 1986 TMA Financial and Operating Report is designed to provide an insight into the financial structure of the companies in this industry. In addition it also provides some guidelines and suggestions as to how a company can improve its financial performance.

The brief discussion below highlights the performance of the typical firm as well as that of the high performance companies in TMA.

Financial Results

Overall, TMA members surveyed showed a 4.9 percent return on assets, and a 16.7 percent return on net worth (owner's equity).

Gross margin was typically 39.6 percent of sales. Operating expenses totaled 33.8 percent, with payroll comprising the single largest expense category (12.8 percent of sales). Operating profit was 5.8 percent and net profit after taxes was equal to 2.6 percent.

Inventory accounted for approximately 26 percent of total assets and accounts receivable made up another 31 percent.

TMA members turned over their inventory 3.3 times per year. The average collection period, based on average quarterly accounts receivable, was typically 91 days. Total asset turnover was 1.8 times per year.

Employee productivity was $98,340 as measured by the sales per employee ratio.

High Profit Companies

High performance firms achieved a 30.7 percent return on net worth. They also managed a 15.4 percent return on total assets. This high profit group consists of the top 25 percent of TMA members based on return on assets and exhibits financial performance significantly above the typical company.

Compared to all firms surveyed in the industry, high profit firms achieved a 13 percent higher gross margin, 21 percent lower operating expenses and 212 percent higher operating profit. High profit firms were more conservative with the use of debt, as indicated by the financial leverage ratio of 2.0 versus the ratio of 3.4 for all firms surveyed. With less debt, high profit firms incurred less interest expense than did all firms, 1.6 percent of sales versus 2.3 percent of sales. The end result for high profit firms is an 8.5 net profit as a percent of sales; this is 227 percent greater than that for all firms which typically achieved a net profit of 2.6 percent.

	All Firms	High Profit Firms
Return on Investment		
Profit Margin	2.6%	8.5%
Asset Turnover	1.8	1.8
Return on Assets	4.9%	15.4%
Financial Leverage	3.4	2.0
Return on Net Worth	16.7%	30.7%
Income Statement		
Net Sales	100.0%	100.0%
Cost of Goods Sold	60.4	55.3
Gross Margin	39.6	44.7
Payroll Expenses	12.8	14.0
Other Operating Expenses	21.0	12.6
Total Operating Expenses	33.8	26.6
Operating Profit	5.8	18.1
Other Income (or Expense)	(2.1)	(2.0)
Profit Before Taxes	3.7	16.1
Income Taxes	1.1	7.6
Net Profit After Taxes	2.6%	8.5%
Ratios		
Current Ratio	1.7	2.1
Sales Per Employee	$98,340	$96,250
Inventory Turnover	3.3	4.9
Average Collection Period (days)	91	75

NOTE: The results of this report are based on financial information for 1985 reported by 46 TMA members.

2.

RETURN ON INVESTMENT

The Strategic Profit Model

There are many different ways to analyze profit performance, each with its own strengths and weaknesses. One of the most popular and most useful procedures is referred to as the strategic profit model. The model provides the ability to look at the profitability of the firm in total and to analyze the different factors that contribute to overall results. To illustrate more clearly how the strategic profit model works, the figure on the opposite page illustrates the performance of a typical firm in the industry. The strategic profit model is founded on the basic assumption that the firm's primary objective is to achieve a desirable rate of return on owners investment--commonly referred to as return on net worth or return on equity.

The Three Profitability Pathways

In the figure on the opposite page, return on net worth is shown on the far right-hand side of the model and reflects the cumulative results of a series of individual profitability calculations. These intermediate calculations represent the three profitability pathways open to the firm in improving return on net worth. Each pathway is important in and of itself, as it provides insights into the performance of the firm; but each pathway is even more important in terms of its relationship to return on net worth.

1. Profit Margin = Net Profit/Net Sales x 100%

The first profitability pathway (shown in the upper left-hand corner of the figure) involves margin management. In using margin management the firm tries to improve its profit margin, the ratio of net profits to net sales. The profit margin of 2.6 percent means that for every $1.00 in sales the company was able to produce 2.6 cents in net profit after taxes.

In trying to improve their profit margins, firms focus most of their attention on expense control and the control of gross margin--the difference between the net sales and the cost of goods sold. For most firms margin management is the single most important pathway in improving return on net worth. Failure to generate an adequate return on sales, or profit margin, is almost impossible to overcome simply by compensating with the other two profitability pathways. Consequently, margin management should be a major focus of management concern.

2. Asset Turnover = Net Sales/Total Assets

The second profitability pathway (shown in the lower left area of the figure) is asset management. With asset management the firm attempts to improve its rate of asset turnover--the ratio of net sales to total assets. The asset turnover ratio is interpreted as the sales the firm produces per dollar of asset investment. Thus the ratio of 1.8 means that the firm is able to generate $1.80 in sales for every $1.00 in assets. The logic of asset turnover is if a firm's assets--including cash, accounts receivable, inventory, property, equipment, and all other assets--can be used as efficiently as possible to generate a maximum amount of sales volume, then, with a given profit margin, the firm can also generate a maximum amount of profit.

Asset turnover is an important factor in the strategic profit model; but the relationship between asset turnover and return on net worth is not nearly as strong or direct as the relationship between profit margin and return on net worth. Stated somewhat differently, the firm can usually compensate if asset turnover is inadequate, but frequently cannot properly compensate if profit margin is inadequate. In the extreme case, if the profit margin is negative (the firm is losing money), there is nothing that can be done with asset turnover to overcome the profit margin problem.

Even though asset turnover is usually secondary to profit margin in determining return on net worth, it should not be ignored. Quite the contrary, many firms have far too much money invested in assets, particularly inventory. This gives them ample room for improving asset turnover and producing a related improvement in return on net worth.

Return on Assets = Net Profit/Total Assets x 100%

When profit margin is multiplied times asset turnover the result is return on assets (shown in the center of the figure), an important intermediate measure of performance. Return on assets measures the profitability of the organization's total asset investment. Returning once again to the model, the typical company produced a return on assets of 4.9 percent, or 4.9 cents in profit for every $1.00 invested in assets.

Return on assets is an excellent ratio for measuring the capital efficiency of the firm. Based on its results of 4.9 percent, a company could make important decisions about expanding its business and about alternative investment possibilities. From a total managerial perspective, though, a more important consideration is still the return to owners; so an additional profitability pathway is needed.

3. Financial Leverage = Total Assets/Net Worth

The final profitability pathway is financial leverage (shown in the second box from the right in the figure). The definition of financial leverage in the strategic profit model is slightly different from the definition of financial leverage commonly used by financial analysts. However, it still measures the same basic concept, the extent to which the firm is using outside (or non-owner) financing as a way of increasing the percentage return to owners. In the strategic profit model financial leverage is defined as the ratio of total assets to net worth. The ratio is interpreted as the total dollars of assets in the firm per dollar of net worth. Clearly, the higher the ratio the more the firm relies on outside financing.

A typical firm has a financial leverage ratio of 3.4 times. This means that for every $1.00 in owners equity or net worth in the firm, the company had $3.40 in total assets. If the total amount in assets is $3.40 and owners put up $1.00, then outsiders by definition put up the remaining $2.40.

While increasing the financial leverage ratio will result in a higher return on net worth, the use of leverage is not without risk. As more outside financing is employed, creditors may be in a position to dictate operating procedures to management on threat of withdrawing financing. In addition, high levels of outside financing usually mean high levels of interest commitments, making the firm somewhat vulnerable in downturn economies. Both these factors tend to make most firms practice some moderation in the use of leverage.

Return on Net Worth = Net Profit/Net Worth x 100%

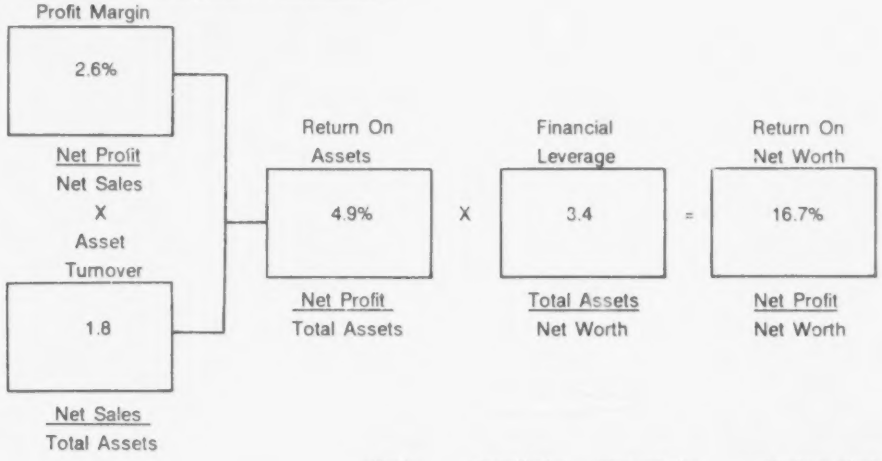
When all of the intermediate calculations are completed, the result is return on net worth. By analyzing return on net worth and its components it is possible to develop a very complete picture of the firm's economic performance. It is also possible to develop specific plans for improving results.

A typical firm has a return on net worth of 16.7 percent, meaning that for every $1.00 in owners equity the firm produced 16.7 cents in net profits. This is an acceptable level of performance, but as we will see some firms in this industry generated a return on net worth almost double that for the typical firm.

The Strategic Profit Model and Profitability Trade-Offs

It is seldom possible to generate an adequate rate of return on net worth by emphasizing only one of the three profitability pathways. Instead, successful profit planning involves blending the profit components together into the best possible combination. This means that profit planning necessitates a series of trade-offs where performance on one or even two profit pathways may be consciously reduced in order to produce increases on the other pathways that result in an overall increase in return on net worth. A firm should not look exclusively at the impact of the decision on any single intermediate measure of performance, such as profit margin or asset turnover, but should look at the overall impact on return on net worth. In this way the strategic profit model can serve as an invaluable tool in decision making.

STRATEGIC PROFIT MODEL--A Graphic Presentation



Profit Model Ratios	All Firms	High Profit Firms	Publicly Held Firms	Privately Held Firms	Sales Volume Under $35 Mil	Sales Volume Over $35 Mil
Profit Margin=						
Net Profit/Net Sales	2.6%	8.5%	8.1%	1.8%	2.4%	6.9%
Asset Turnover=						
Net Sales/Total Assets	1.8	1.8	1.5	2.0	1.9	1.6
Return on Assets						
Net Profit/Total Assets	4.9%	15.4%	11.5%	3.7%	4.6%	10.8%
Financial Leverage						
Total Assets/Net Worth	3.4	2.0	3.0	2.9	2.1	2.9
Return on Net Worth						
Net Profit/Net Worth	16.7%	30.7%	38.0%	11.0%	9.6%	30.8%

4.

INCOME STATEMENT

The income statement is the area in which most firms can make the fastest, largest and easiest improvements in profitability results. In attempting to improve performance, two areas naturally stand out--gross profit (and cost of goods sold) and operating expenses. Both need to be carefully controlled.

Cost of Goods Sold & Gross Profit

Cost of goods sold (COGS) is, by far, the largest expense in the income statement. COGS is deducted from sales to determine gross profit. Gross profit margin, then, is the first measure of profitability and considers all expenses related to the cost of buying (or making) the products sold. To be successful a company must earn enough gross profit to cover all the other expenses of a business and earn a reasonable net profit as well.

Given the gross profit pressures in the industry, the profit improvement opportunity through gross profit management is significant. Most of the improvement strategies, though, are somewhat time consuming. Thus gross profit management should be viewed as the best long term profit opportunity.

Operating Expenses

The opportunity through better expense management is immediate. In fact, expense management is frequently referred to as a survival issue--if the expenses are not in line, the firm cannot survive.

Income Statement	All Firms	High Profit Firms	Publicly Held Firms	Privately Held Firms	Sales Volume Under $35 Mil	Sales Volume Over $35 Mil
Gross Sales	105.9%	104.1%	106.6%	105.8%	105.5%	106.9%
Returns and Allowances	2.9	2.4	2.7	2.9	2.3	3.1
Discounts	3.0	1.7	3.9	2.9	3.2	3.8
Total Deductions	5.9	4.1	6.6	5.8	5.5	6.9
Net Sales	100.0	100.0	100.0	100.0	100.0	100.0
Cost of Goods						
Materials	42.3	39.3	33.6	45.7	42.6	38.9
Direct Labor	5.0	4.4	3.3	5.6	6.6	3.9
Freight In	.0	.0	.8	.6	.0	1.0
Manufacturing Overhead	13.1	11.6	14.8	13.7	16.8	12.8
Total Cost of Goods Sold	60.4	55.3	52.5	65.6	66.0	56.6
Gross Profit	39.6	44.7	47.5	34.4	34.0	43.4
Operating Expenses						
Administrative Salaries & Wages	4.4	4.4	3.3	5.1	4.6	2.8
Sales Salaries and Commissions	4.1	4.3	1.7	4.6	4.4	2.1
All Other Payroll (less payroll taxes and employee benefits)	2.3	2.9	1.6	2.5	2.8	1.7
Payroll Taxes and Employee Benefits	2.0	2.4	1.2	2.2	2.7	1.6
Advertising and Promotion	8.3	6.9	13.3	4.3	2.2	15.2
Research and Development	1.5	.3	2.2	.8	.7	2.5
Utilities	.2	.1	.1	.1	.1	.2
Telephone	.4	.2	.2	.4	.3	.3
Rent or Occupancy Expenses	.8	.2	.4	.9	.7	.7
Freight Out	1.8	2.1	2.2	1.8	1.4	2.2
Bad Debt Losses	.2	.2	.1	.2	.2	.1
All Other Operating Expenses	7.8	3.7	5.2	6.7	7.4	10.8
Total Operating Expenses	33.8	26.6	31.5	29.6	27.5	32.0
Profit (Loss) From Operations	5.8	18.1	16.0	4.8	6.5	11.4
Other Income						
Royalty Income	.0	.0	.0	.0	.0	.2
Other Income	.4	.4	.5	.4	.5	.3
Other Expenses						
Interest Expense	2.3	1.6	2.3	2.6	2.4	2.5
Royalty Expense	.2	.6	1.5	.3	.5	.6
Other Expenses	.0	.2	.7	.0	.0	.4
Profit (Loss) Before Income Taxes	3.7	16.1	12.0	2.3	4.1	8.4
Income Taxes	1.1	7.6	3.9	.5	1.7	1.5
Profit (Loss) After Income Taxes	2.6%	8.5%	8.1%	1.8%	2.4%	6.9%

BALANCE SHEET

The balance sheet provides an excellent profile of the financial structure of the firm. An increasing number of firms are discovering that it's not enough just to make money today. The firm must have financial integrity to be sure it makes money in the future.

Assets

The assets represent the total investment in the firm. When considering assets that will improve ROI, a company needs to focus on two areas--inventory and accounts receivable.

Accounts Receivable

Accounts receivable is the largest asset category among the companies surveyed. Until collected, accounts receivable are dollars currently unavailable to meet cash obligations. Hence, methods to control credit collections will strengthen financial position as well as improve overall asset turnover.

Inventory

When a company buys merchandise, its inventory account is increased by the amount of the purchase. This amount is kept in inventory until the items are sold and delivered to customers. At this time, it is removed from the balance sheet and charged to the cost of goods sold expense.

Products must be bought and held in inventory before they are sold. The longer the holding period, the larger the inventory. When inventory is purchased on credit, the liability for the amount of goods bought is recorded in accounts payable. The cost is also recorded in inventory and therefore both the asset (inventory) and the liability (accounts payable) accounts increase by the same amount.

Inventory is the second largest asset investment most firms make. Therefore, changes to improve inventory management will have a major impact on overall asset turnover and will consequently increase return on investment.

Liabilities and Net Worth

As stated before, assets represent the total investment in the business. This investment can be financed by two groups, non-owners (liabilities) and owners (net worth). Both sources of financing must be used properly.

Liabilities

When outsiders finance the business they do so by providing funds on a temporary basis. This includes suppliers who provide products on credit (accounts payable) and financial institutions that loan money (notes payable and long term debt). Accounts payable is especially important as it represents interest-free financing.

Net Worth

In addition to liabilities, the other source of a company's total capital is from its owners. Stockholder's equity or net worth reveals how much money the owners have invested in the business. There are two basic accounts in net worth; paid-in capital or money paid in by the owners, and retained earnings or profits reinvested in the business.

Net worth is the only money in the business that is totally at risk. All outside creditors will be repaid at a specific rate of interest. On the other hand, the return received on the funds invested by the owners (RONW) depends totally on the profits earned by the company. The assumed goal for any business is to maximize return on owner's investment in the firm; RONW should exceed the rate of return available on risk-free investments such as government securities.

		High	Publicly	Privately	Sales Volume	
	All	Profit	Held	Held	Under	Over
Assets	Firms	Firms	Firms	Firms	$35 Mil	$35 Mil
Current Assets						
Cash & Securities	9.0%	18.7%	21.4%	6.2%	7.0%	11.7%
Accounts Receivable	31.3	35.1	34.8	33.6	31.9	35.2
Inventory	26.1	19.5	17.2	31.0	32.0	20.8
Other Current Assets	13.4	6.6	9.5	7.4	5.8	10.2
Total Current Assets	79.8	79.9	82.9	78.2	76.7	77.9
Fixed Assets	19.8	19.1	15.1	21.8	23.3	19.5
Total Tangible Assets	99.6	99.0	98.0	100.0	100.0	97.4
Intangible Assets	.4	1.0	2.0	0	0	2.6
Total Assets	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Liabilities and Net Worth						
Current Liabilities						
Accounts Payable (Trade)	11.0%	10.6%	12.9%	10.1%	10.2	12.8%
Notes Payable	15.7	8.8	13.6	17.4	14.2	11.8
All Other Current Liabilities	17.6	18.8	23.0	15.6	9.2	22.1
Total Current Liabilities	44.3	38.2	49.5	43.1	33.6	46.7
Long Terms Debt	14.0	13.0	16.6	14.3	15.4	16.6
Net Worth	41.7	48.8	33.9	42.6	51.0	36.7
Total Liabilities and Net Worth	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

6.

FINANCING RATIOS

Dozens of ratios can be computed from a single set of financial statements, but usually only a few are helpful in a given situation. Thus, although many frequently used ratios are described below, the best analytical procedure is not to compute all of them mechanically but rather to decide first which ratios might be relevant in the particular type of investigation being made.

Current Ratio = Current Assets/Current Liabilities

The current ratio is the most commonly used of all balance sheet ratios. It is a measure of the margin of safety that management maintains in order to allow for the inevitable unevenness in the flow of funds through the current asset and liability accounts. Since a company rarely can count on an even flow of funds, it needs a supply of liquid funds to be assured of being able to pay its bills when they come due. As a general rule of thumb, the current ratio should be 2.0 or higher.

Quick Ratio = (Cash + Accounts Receivable)/Current Liabilities

Quick assets include cash, marketable securities, and current accounts receivable. Presumably, these items can be converted into cash quickly and at approximately their stated amounts, unlike inventory, which is the principal current asset excluded. The quick ratio, or acid-test ratio, is therefore a measure of the extent to which liquid resources are immediately available to meet current obligations. A guideline for the quick ratio is 1.0 to 1.0.

Cash to Current Liabilities = Cash/Current Liabilities x 100%

Cash and marketable securities are obviously the most readily available assets with which to pay liabilities. Most creditors would like cash to equal at least 10 to 20 percent of current liabilities.

Accounts Payable to Inventory = Accounts Payable/Inventory x 100%

Businesses generally purchase inventory on credit. The accounts payable to inventory ratio measures the amount of inventory a company has that is financed by the suppliers of that inventory.

Accounts Payable Payout Period = Accounts Payable/(Cost of Goods/365 days)

This ratio measures the timeliness of paying suppliers.

Debt to Equity = Total Liabilities/Net Worth

From the point of view of the company, debt is risky because if creditors are not paid promptly they can take legal action to obtain payment which can, in extreme cases, force the company into bankruptcy.

The greater the proportion of its capital that is obtained from owners, the less worry the company has in meeting its fixed obligations. A company with a high proportion of debt is said to be highly leveraged. This equity ratio shows the balance that the management of a particular company has struck between debt and owner's equity.

EBIT to Total Assets = Earnings Before Interest and Taxes/Total Assets x 100%

EBIT to total assets is an important ROI ratio that provides a profit analysis based on operating earnings, before interest and income taxes. This ratio is best compared with a company's annual interest rate on borrowed funds. If a firm's EBIT to Total assets ratio is higher than the interest rate, there is a favorable "spread" between the two.

Why pay a higher rate to finance assets than the rate you earn on that asset investment?

Times Interest Earned = EBIT/Interest

This ratio measures the number of times earnings will cover interest payments on debts. The numerator of this ratio is the amount of earnings available to meet the interest obligation. This ratio is a measure of the level to which income can decline without impairing the company's ability to meet interest payments on its liabilities. Income is taken before income taxes because if income declined, income taxes would decline proportionately. The ratio implies that net income is equivalent to additional cash, which is not necessarily the case, of course.

Financing Ratios	All Firms	High Profit Firms	Publicly Held Firms	Privately Held Firms	Sales Volume Under $35 Mil	Sales Volume Over $35 Mil
Current Ratio	1.8	2.1	1.7	1.8	2.3	1.7
Quick Ratio	.9	1.4	1.1	.9	1.2	1.0
Cash to Current Liabilities	20.3%	49.0%	43.2%	14.4%	20.8%	25.1%
Accounts Payable to Inventory	42.1%	54.4%	75.0%	32.6%	31.9%	61.5%
Days Payable Outstanding (days)	32	31	35	25	24	42
Debt to Equity	1.4	1.0	1.9	1.3	1.0	1.7
Earnings Before Interest & Taxes To Total Assets	10.8%	28.4%	23.6%	9.6%	9.6%	19.8%
Times Interest Earned	2.6	11.1	6.2	1.9	2.7	4.4

PRODUCTIVITY RATIOS

Sales Per Employee= Net Sales/Total Full-Time Equivalent Employees

As was discussed in the income statement section of this report, employee payroll is the largest operating expense a business incurs. Therefore, employee productivity becomes a crucial factor when analyzing ways to improve profitability. The typical firm generated $98,340 in sales per employee. Interestingly, this is slightly above the performance of companies in the high profit category. Consequently payroll expense as a percentage of sales is also slightly lower for the typical firm. This does not mean they pay their employees lower wages, it simply means the they make more productive use of one of their greatest resources-their employees.

Average Collection Period = Accounts Receivable/(Credit Sales/365 days)

The collection period can be related roughly to the credit terms offered by the company. A rule of thumb is that the collection period should not exceed 1 1/3 times the regular payment period; that is, if the company's typical terms call for payment in 30 days, collection period should not exceed 40 days. Changes in the ratio indicate changes in the company's credit policy or changes in its ability to collect receivables.

Inventory Turnover = Cost of Goods Sold/Average Inventory

Inventory turnover is a indication of the velocity with which products move through the business. An increase in the absolute size of inventory, for example, may represent the additional stocks required by an expanding business, or it may represent an accumulation of merchandise because sales volume has recently declined. In the latter case, the inventory turnover will decrease. A decrease in the inventory turnover ratio may therefore be a significant danger signal.

Inventory Holding Period

Some of the company's materials or products come in and go out in a matter of weeks, others may stay in stock for 6 months or longer. The holding period differs for different products. Business managers and owners must be concerned with a holding period that is longer than necessary due to the high costs of tying up capital in excessive inventory. On the other hand, reducing inventory levels too much could result in lost sales because certain products are not available when the customer wants them. The cost of carrying inventory has to be balanced against the profit opportunities lost by not having products in stock ready for sale.

	All Firms	High Profit Firms	Publicly Held Firms	Privately Held Firms	Sales Volume Under $35 Mil	Sales Volume Over $35 Mil
Employee Productivity Ratios						
Net Sales Per Full-Time Salesperson (or Equiv.)	$2,720,510	$1,678,370	N/A	$1,678,370	N/A	$6,249,200
Net Sales Per Full-Time Employees (or Equiv.)	$98,340	$96,250	N/A	$94,670	$85,390	$156,810
Payroll Expense--% Total Sales	12.8%	14.0%	7.8%	14.4%	14.5%	8.2%
Payroll Per Employee	$14,760	$14,760	N/A	$14,760	$12,100	$16,240
Accounts Receivable Management						
Average Collection Period (days)	91	75	99	91	73	99
Inventory Management						
Inventory Turnover	3.3	4.9	4.3	3.2	2.6	3.6
Inventory Holding Period (days)	106	66	63	110	114	92
Sales to Inventory	5.8	8.9	8.3	5.0	4.2	6.3
Gross Margin Return on Inventory	214.2%	395.8%	497.9%	171.7%	137.2%	259.7%

8.

GMROI ANALYSIS

A inventory analysis concept that is receiving widespread management attention is the use of GMROI-Gross Margin Return on Inventory--to evaluate inventory performance. The basic objective of GMROI is to develop a single comprehensive measure of inventory performance. The measure would allow the buyer to look at products with different gross margin percentages and different rates of inventory turnover and make a relatively quick evaluation as to which are really the best performers. The GMROI concept reviews inventory results from a return on investment perspective, just as return on net worth tries to view total company performance from a return on investment perspective.

Return in the GMROI model is defined as gross margin, which is the broadest possible definition of profit. Gross margin takes none of the operating expenses of the business into consideration. This means that a product with a high gross margin, but very high expenses as well, would look more profitable than a product with a slightly lower gross margin, but much lower expenses. Even though it is a crude measure of profitability, gross margin can be helpful. It does give some indication of profits, and it can be measured with a high degree of accuracy. In contrast, expenses are next to impossible to measure accurately for individual products or even departments, making it difficult to use measures other than gross margin. This means that while gross margin is a crude measure of return, it can be measured with great accuracy and is a useful estimate of profitability for merchandising decisions.

Investment in the GMROI formulation is simply the number of dollars the firm has tied up in inventory. This ignores the majority of the asset base and so is a very imprecise measure of investment. For evaluating individual items or departments though, inventory is a lot like gross margin in that it is the only investment factor that can be measured with precision. It is also the one expense category that is directly controllable.

GMROI may be broken down into **gross margin percentage** and the **sales to inventory** ratio. The gross margin percentage is a simple concept that is well understood among merchandising executives, but interpreting the sales to inventory ratio creates an inordinately large number of problems.

The sales to inventory ratio is closely related to, but not identical to, inventory turnover. Turnover looks at the cost of goods sold produced by the inventory base (Inventory Turnover = Cost of Goods Sold/Average Inventory at Cost), while the sales to inventory ratio looks at the sales produced by the inventory (Sales to Inventory Ratio = Sales/Average Inventory at Cost). From a strictly logical point of view the sales to inventory ratio is a stronger concept than inventory turnover, since the firm is more interested in the sales that inventory produces than the cost of goods sold that the inventory produces.

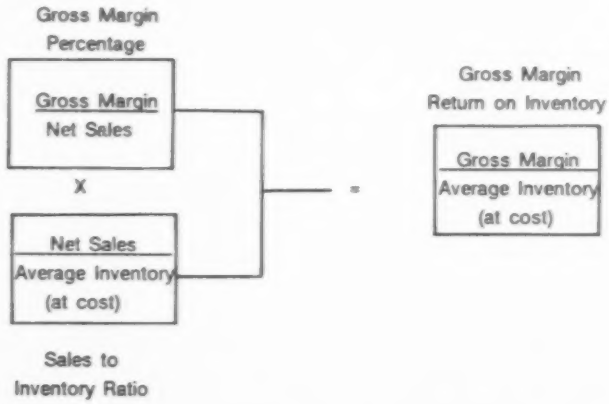
The real value of GMROI is that it allows the firm to evaluate inventory on the return on investment it produces and not just on the gross margin percentage. This means that GMROI often considers items with widely varying gross margin percentages as equally profitable, as in the following example:

Item	Gross Margin	X	Sales to Inventory	=	GMROI
A	50%		3		150%
B	30%		5		150%
C	25%		6		150%

Since all three items produce equal GMROI levels, they should be considered equally profitable. This type of thinking represents a major deviation from conventional thought. Most inventory analysis systems would still suggest the Product A is twice as profitable as Product C because its gross margin is twice as high.

GMROI allows the firm to consciously consider the trade-off between gross margin and inventory utilization. There might be instances in which the firm would knowingly lower its gross margin in an effort to produce a higher sales to inventory ratio and a higher GMROI. Only a concept such as GMROI can provide a basis for making such a decision.

The Components of GMROI



CUSTOMER PROFILE

Sales By Type of Customer

The distribution of toys is continuing to undergo a subtle shifting away from the traditional channels. In 1985, the TMA members participating in this survey saw a declining importance of wholesalers, department stores, general merchandise chains and even toy stores. Conversely, discount stores and other types of retail stores made significant inroads in terms of market share.

DATING

The effects of a tough financial year for retailers are clear in the across the board increases of the percentage of sales made on extended dating.

Sales By Type of Customer	All Firms	High Profit Firms	Publicly Held Firms	Privately Held Firms	Sales Volume Under $35 Mil	Sales Volume Over $35 Mil
Wholesalers	12%	10%	11%	12%	13%	9%
Discount Stores (K mart, Target, etc.)	30	33	35	29	33	32
Department Stores	4	3	5	4	6	3
General Merchandise Chains (Sears, Penneys, Wards)	10	11	7	10	10	9
Toy Stores	22	18	21	22	14	25
Variety Stores	5	5	4	7	11	3
Catalog Showrooms	5	6	8	4	3	7
Other Retail Stores	11	14	9	12	10	12
	100%	100%	100%	100%	100%	100%
Percent of Sales on Extended Dating						
(90 days or more)	63%	45%	68%	60%	60%	70%

ADVERTISING PROFILE

Advertising is one of the strongest factors in developing a successful product image. Consumers have more contact with a toy manufacturer through advertising than they do from actually shopping for toys in a store. If the advertising correctly represents the product image the firm is trying to convey, the market position can be greatly enhanced.

Advertising Budget Allocations

When taken together, the two television categories account for the bulk of advertising expenditures. Traditionally the favored medium for toys, television is the overwhelming choice of firms in the publicly held (76.4%) and largest sales category (78.2%) groups.

Magazine advertising is being increasingly used due largely to its strengths--lower cost than television, yet able to provide a more narrowly defined audience than newspapers. Privately held firms (34.0%) and smaller sales size companies (42.2%) find this medium most attractive.

Advertising Expenditures

As shown below, advertising expenditures are often expressed as a percent of sales; a convenient method for purposes of comparison. However, this figure provides no real indication as to whether or not these expenditures were sufficient.

Therefore it is not advisable to utilize this figure in terms of planning future expenditures. A more useful procedure, undeniably more difficult to apply, is the "objective and task" approach. This method calls for the establishment of effort required to reach the sales objective. The advertising appropriation then is based upon the sales goal to be accomplished rather than upon an arbitrary percent of sales figure.

Co-op Advertising

Almost ninety percent of the firms surveyed indicated that they provide some measure of co-operative advertising dollars to their customers. Co-op funding rates are increasingly competitive as the 3 percent rate moves closer to an industry standard. High profit firms in fact, favor the 3 percent rate (73%) while the majo[illegible] of the publicly held and largest sales size firms are able to maintain just a 2 percent rate.

Advertising Expenditures By Type of Medium	All Firms	High Profit Firms	Publicly Held Firms	Privately Held Firms	Sales Volume Under $35 Mil	Sales Volume Over $35 Mil
Spot or Local Television	23.1%	28.3%	54.8%	13.5%	4.5%	53.2%
Network Television	12.4	16.9	21.6	9.8	1.8	25.0
Magazines	28.3	15.7	3.8	34.0	42.2	7.5
Newspapers	6.6	12.3	8.1	6.6	8.8	6.9
Radio	.1	.1	.1	.0	.0	.1
Outdoor	.0	.0	.0	.0	.0	.0
Direct Mail	4.6	1.2	.0	6.1	3.3	.0
Other	24.7	25.5	11.6	30.0	39.4	7.3
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Percent of Companies Providing Co-op Advertising	89%	100%	100%	85%	94%	100%
Co-op Reimbursement Policy						
Dollar Sales Volume	89.7%	100.0%	100.0%	88.9%	85.7%	100.0%
Unit Sales Volume	.0	.0	.0	.0	.0	.0
Other	10.3	.0	.0	11.1	14.3	.0
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Co-op Reimbursement Rate						
1%	13.5%	.0%	11.1%	15.4%	21.4%	6.7%
2%	37.8	27.3	55.6	30.8	35.7	53.3
3%	37.8	72.7	33.3	38.5	42.9	40.0
4%	2.7	.0	.0	3.8	.0	.0
5% or more	8.1	.0	.0	11.5	.0	.0
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

DETERMINANTS OF PROFITABILITY

One of the most important reasons for conducting a operating results survey is to determine what makes high performance firms more successful than a typical company. This section of the report will examine operating characteristics that contribute to high profitability.

First of all, what type of results should a company be able to achieve? In order to answer that question, one must consider the return on investment that could be earned on risk-free investments such as government securities. Then you must add to that rate an additional increment of return which takes into consideration the risk associated with your business investment. The resulting rate of return is the minimum return on net worth which should be attained.

With that in mind, consider the performance of TMA members last year. Of those surveyed the typical firm achieved only a 16.7 percent return on net worth (RONW). High profit firms, however, managed 30.7 percent return on net worth. High performance companies for the purpose of this report were those in the upper 25th percentile for return on assets. Return on assets is the best measure of productivity as it encompasses everything invested in the business. As the high performance group consists of one of every four firms participating in the survey, the high performance figures are realistic goals for most, if not all, TMA members.

In the return on investment section of this report on pages 2 and 3, we found that a business has three avenues to improve RONW: Profit margin management, asset management and leverage management. High profit firms have managed all three avenues to their advantage.

The number one factor contribution to the high performance group's success was a significantly higher net profit. These industry leaders were able to bring 5.9 percentage points more to the bottom line than the typical firm. This factor, more than anything else, separated the winners from the rest of the participating companies last year. In terms of manipulating the three avenues to improved RONW, the high profit firms traded lower financial leverage for a higher profit margin.

These higher profit were achieved in part through stringent controls on expenses. The variance between the high profit group (26.6%) and the typical TMA member (33.8%) was over seven percentage points. Almost all of that variance is seen in the differences between the two groups in advertising, research and development, and "all other" expenses.

Secondly, inventory control also proved to be a key factor in reaching higher levels of profitability. Notably, the fast track companies turned over their inventory at a faster pace (4.9X versus 3.3X); also exemplified by the shorter inventory holding period they enjoy (66 days versus 106 days). The impact of the higher inventory turnover is that it reduces the reliance on outside capital to finance excess inventory. The sales to inventory ratio exhibits clearly the higher profitability involved; high profit firms produced $8.90 in sales for every dollar invested in inventory compared to just $5.80 produced by the typical firm.

Finally, the third area in which the high profit companies excel is that of accounts receivable management. In collecting these funds more quickly than their peers, high profit firms have limited their needs for outside finding. Lower requirements for outside financing mean lower interest expenses. One method used by these firms to maintain collections is to limit the amount of sales on extended dating to just 45 percent, versus 63 percent of sales for the typical firm.

12.

AN ACTION PLAN FOR IMPROVING PROFITABILITY

In order to improve return on net worth, a company must have a plan. Studies show that those firms that budget annually and monitor that plan monthly, make approximately twenty-five percent more profit. Profit planning involves four separate, but closely related steps. The first step is developing a profit forecast based on investment in the business. The second and most tedious step is to develop a sales forecast. The third step is putting together an expense plan. The final step is the development of an asset management plan.

The Profit Forecast

The first, and by far the most important, step in budgeting is development of a forecast for profit based upon investment levels in the company. That is, based on the total asset investment and/or the owner's investment, what percentage return are you going to make? That return must be adequate to justify the risk the owners are taking in this business.

To forecast profit, we simply take the desired rate of return and multiply it by the investment in the company. If the owners have $100,000 invested and they want a 20 percent return on their money, the company must earn a $20,000 profit ($100,000 x .20 = $20,000). In other words, to earn a 20 percent RONW, the company must first show a $20,000 profit for each $100,000 that the owners have invested. There can be no other answer if you're going to achieve your return on investment goals.

The Sales Forecast

The second, and hardest, step in budgeting is the development of a forecast for sales and cost of goods sold, a process involving a unique amalgam of precise analysis and pure guesswork. Every other item in the budget is partially dependent upon the sales forecast, so it is important to put together a forecasting procedure that maximizes analysis and minimizes guesswork. There are two general guidelines for doing this.

First, sales should be forecast at the greatest possible level of detail. Instead of forecasting the figures for the total firm, the forecasts should be made by department or merchandise category and then combined to produce a total. A second general guideline is that the sales forecast should be broken down into its component parts. This means that if last year's sales figure is used as a starting point, specific estimates should be made for what kind of sales change will result from inflation, population growth, economic conditions, new competitors or other factors. By developing separate estimates for each factor a much more logical and realistic forecast results.

The Expense Plan

Estimating the various costs within the profit plan is a comparably easy task. The main cost that needs to be considered is payroll. Other costs are important, but in most instances they are small in size and relatively stable in character.

Payroll expenses should be budgeted based upon the amount of effort required to achieve the sales forecast. This means relating the expense estimates to the number of hours that must be worked by different types of employees. Once again, the budgeting and action plan parts of profit planning become intertwined.

Gross Margin

In order to achieve the profit forecast we have established, the gross margin we earn (based on the sales and cost of goods forecast developed in step two) must equal the forecasted profit (step one) plus the forecasted expenses (step three). If not, three areas must be reconsidered; either we won't make the profit required (and nobody wants to change that), or expenses must be reduced, or the sales and cost of goods forecast must be adjusted.

The Asset Investment Plan

The final step in the budgeting process is to estimate the required level of asset investment. This is much more of a free form process than estimating profit, sales or expenses, so some caution is required. The two main asset categories that need to be budgeted are inventory and accounts receivable. Both categories can be related directly to sales volume by determining how much of an investment is needed in inventory and accounts receivable to support a given level of sales.

Inventory may be calculated by taking the forecasted cost of goods sold and dividing by the desired inventory turnover. Accounts receivable may be calculated by multiplying the forecast in credit sales per day (credit sales/365) by the targeted receivables collection period.

As guidelines for determining how much of an inventory or accounts receivable investment is needed to support a given level of sales, a firm might use the inventory productivity ratios and accounts receivable collection period provided earlier in this report. In using those industry standards or your own company's present figures, two cautions are in order. First, most companies can improve their inventory turnover by only one-half to one turn in a single year. Secondly, the accounts receivable collection period can usually be improved by just five to ten days in a single year. The profit planner must choose a figure that is realistic and attainable and that does not represent too sudden a shift from figures for the previous year.

Finalizing the Profit Plan

After the firm has developed a profit plan, a sales plan, an expense plan and an investment plan, it has compiled almost all of the information necessary to construct a strategic profit model. Most of the loose ends have to do with the various liability accounts. They are quite easy to project, though. One of the two major liability accounts is notes payable. This provides no estimating difficulties as additional borrowing requirements are typically known well in advance and repayments usually follow a carefully laid out schedule. The other major liability account, accounts payable, varies almost directly with inventory and can be estimated quite closely once the inventory figure is known.

In most instances there is but one limitation to budgeting for liabilities. As a general guideline, many lending financial institutions frequently look askance at firms in which the financial leverage ratio exceeds 2.0. The feeling of lenders is that as this ratio rises above 2.0 the firm is overly reliant on outside financing and may face problems in meeting current obligations and interest burdens.

At this point budgeting becomes very interactive in nature as the company may have to rework the budget several times before it is finalized. In this reworking process it is often useful to have an extended strategic profit model with individual boxes for each budget figure. With such a detailed model it is possible to follow very closely the impact that different management actions will have.

Constructing Action Programs

The targets developed during the budgeting process must be backed up with clearly defined action programs to insure that the objectives actually will be reached. It is at this stage that profit planning turns from a somewhat routinized, accounting oriented process to a highly creative, somewhat free form one. This difference in character takes place because the only real limit to the different types of action programs that can be constructed is the imagination of management.

For example, if the budget calls for an increase in gross margin there are any number of different ways of producing the increase. Four of the most commonly used approaches are raising prices, buying merchandise more advantageously, reducing margin reductions such as markdowns, and changing the mix of merchandise sold so that it includes more higher margin goods. Within each one of these broad approaches there is still a considerable amount of freedom regarding the exact technique that will be employed.

Raising Prices--A price increase approach to raising gross margin could be achieved in a very simple manner by merely instituting an across-the-board price increase. In a more subtle manner a price increase could be effected by raising prices only on what are commonly known as blind items--those items on which customers have poor price perceptions. There is a wide range of infrequently purchased items for which prices can be raised with very little loss in price competitiveness.

Advantageous Buying--Raising gross margin through more effective buying practices also opens up a number of different alternatives. An obvious possibility might be purchasing in larger quantities to obtain greater quantity discounts. This improves gross margin without raising prices.

Controlling Margin Reductions--Margin reductions are normal erosions in gross margin due to damage, theft, obsolescence, or other factors that make it impossible to sell every item at full price. Margin reductions occur in every firm and can never be eliminated entirely. Where margin reductions become excessive is in firms with poor operating procedures where potential margin reduction problems are not quickly identified or completely resolved.

Changing the Merchandise Mix--The final major alternative for increasing gross margin is by altering the mix of merchandise sold. This may mean phasing out entire merchandise lines in extreme cases, because the margins are too low. To replace the eliminated items, other high margin items are emphasized.

The ideas expressed above represent just a few of the ways in which gross margins can be improved. Such a wide range of choice in developing action programs exists with every one of the profit variables.

Controlling Profitability Results

The budgeting and action program stages of product planning are highly interrelated, and during profit planning management's attention is continually moving back and forth from one activity to the other. In contrast, the final stage, control, is much more independent and typically commences only after the other stages have been completed.

The control process is essentially a feedback mechanism for management. It involves continually monitoring actual results, comparing actual results with the profit plan and then developing new action programs to correct any fall-short situations that arise. Development of effective control procedures rests largely upon having a management information system that will provide accurate and timely information regarding the critical profit variables.

In summary, profit planning involves the development of detailed budgets, particularly in the profit, sales expense and investment areas. These budgets are then supported by action programs that identify the courses of action that must be taken to make the budget a reality. Finally, a control system must be used to insure that the overall profit plan is really met. If these steps are followed closely, then the firm should be able to generate desirable levels of profit performance.

Analysis By Type of Firm

Income Statement	Manufacturers[1]	All Other Types[2]
Gross Sales	106.0%	104.1%
Returns and Allowances	3.1	2.4
Discounts	2.9	1.7
Total Deductions	6.0	4.1
Net Sales	100.0%	100.0%
Cost of Goods		
Materials	39.7	51.5
Direct Labor	5.5	2.7
Freight In	.0	.6
Manufacturing Overhead	14.8	7.7
Total Cost of Goods Sold	60.0	62.5
Gross Profit	40.0	37.5
Operating Expenses		
Administrative Salaries & Wages	4.0	4.5
Sales Salaries and Commissions	4.1	4.4
All Other Payroll (less payroll taxes and employee benefits)	2.5	1.9
Payroll Taxes and Employee Benefits	2.2	1.9
Advertising and Promotion	7.3	8.6
Research and Development	1.8	.6
Utilities	.3	.1
Telephone	.4	.4
Rent or Occupancy Expenses (overhead)	.9	.8
Freight Out	2.1	1.8
Bad Debt Losses	.2	.1
All Other Operating Expenses	6.2	8.7
Total Operating Expenses	32.0	33.8
Profit (Loss) From Operations	8.0	3.7
Other Income		
Royalty Income	.3	.0
Other Income	1.1	.2
Other Expenses		
Interest Expense	3.0	1.7
Royalty Expense	.9	.0
Other Expenses	.0	.6
Profit (Loss) Before Income Taxes	5.5	1.6
Income Taxes	1.8	.4
Profit (Loss) After Income Taxes	3.7%	1.2%

[1]Includes in-house manufacturers only

[2]Includes manufacturers contracting out production, distributors, and importers

	Manufacturers[1]	All Other Types[2]
Strategic Profit Model		
Profit Margin	3.7%	1.2%
Asset Turnover	1.8	2.3
Return on Assets	7.3%	3.1%
Financial Leverage	2.3	3.7
Return on Net Worth	16.7%	12.1%
Financing Ratios		
Current Ratio	2.2	1.6
Quick Ratio	1.3	.8
Cash to Current Liabilities	11.3%	3.4%
Accounts Payable to Inventory	26.6%	37.5%
Debt to Equity	1.1	1.5
Earnings Before Interest and Taxes to Total Assets	13.7%	8.4%
Times Interest Earned	2.8	1.9
Employee Productivity Ratios		
Net Sales Per Full-Time Salesperson	$2,517,610	N/A
Net Sales Per Full-Time Employee	$86,810	$180,010
Payroll Expense--% Total Sales	12.8%	12.7%
Payroll Per Employee	$11,290	$19,870
Accounts Receivable Management		
Average Collection Period (Days)	91	82
Inventory Management		
Inventory Turnover	3.4	3.2
Inventory Holding Period (Days)	101	104
Sales to Inventory	6.0	5.4
Gross Margin Return on Investment	226.4%	200.3%

[1]Includes in-house manufacturers only
[2]Includes manufacturers contracting out production, distributors, and importers

Quarterly Information

All Firms	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Net Sales	100.0%	100.0%	100.0%	100.0%
Cost of Goods Sold	64.3	61.1	59.7	63.5
Gross Profit	35.7	38.9	40.3	36.5
Total Operating Expenses	36.5	35.9	28.9	34.2
Profit From Operations	(.8)	3.0	11.4	2.3
Other Income (Expense)	(1.2)	(1.7)	1.8	2.9
Net Profit Before Taxes	(2.0)%	1.3%	9.6%	(.6)%
Sales Under $35 Million				
Net Sales	100.0%	100.0%	100.0%	100.0%
Cost of Goods Sold	66.7	70.1	64.0	67.7
Gross Profit	33.3	29.9	36.0	32.3
Total Operating Expenses	34.1	28.9	26.6	31.1
Profit From Operations	(.8)	1.0	9.4	1.2
Other Income (Expense)	(1.2)	(.9)	(4.0)	(1.7)
Net Profit Before Taxes	(2.0%)	.1%	5.4%	(.5)%
Sales Over $35 Million				
Net Sales	100.0%	100.0%	100.0%	100.0%
Cost of Goods Sold	54.1	54.7	55.7	56.7
Gross Profit	45.9	45.3	44.3	43.3
Total Operating Expenses	45.4	38.8	28.4	37.8
Profit From Operations	.5	6.5	15.9	5.5
Other Income (Expense)	(4.3)	(3.7)	(4.0)	(3.8)
Net Profit Before Taxes	(3.8)%	2.8%	11.9%	1.7%

Operating Trends

The following tables summarize the key operating percentages for the past six years as reported by participating members. The operating trends were compiled from prior years financial and operating ratio reports and as such do not represent a consistent sample of TMA members.

SALES INCREASES (Percent Change vs. Prior Year)	1980	1981	1982	1983	1984	1985
Under $7 Million	19.7	193.4	(5.5)	31.6	18.1	NA
$7 to $35 Million	2.7	9.8	(5.5)	8.9	3.5	(7.4)
Over $35 Million	9.9	13.8	(.1)	0.0	29.6	2.1
All Firms	9.0	13.5	(.6)	9.8	16.7	.6
GROSS PROFITS (Percentage of Sales)						
Under $7 Million	40.5	39.0	40.2	41.0	41.0	NA
$7 to $35 Million	30.4	33.1	34.7	34.0	36.2	34.0
Over $35 Million	41.4	43.0	43.3	45.3	44.5	43.4
All Firms	40.3	42.8	39.5	39.6	39.9	39.6
OPERATING EXPENSES (Percentage of Sales)						
Under $7 Million	88.2	41.9	38.4	35.3	35.0	NA
$7 to $35 Million	24.5	23.8	27.7	27.3	29.4	27.5
Over $35 Million	31.1	31.2	36.0	34.7	33.1	32.0
All Firms	30.5	30.5	31.9	33.0	31.5	33.8
INCOME BEFORE INCOME TAXES (Percentage of Sales)						
Under $7 Million	(40.1)	(8.7)	.2	2.8	5.3	NA
$7 to $35 Million	3.6	6.3	4.7	5.3	4.4	4.1
Over $35 Million	7.8	9.8	3.6	5.3	5.4	8.4
All Firms	7.3	9.3	4.6	4.2	5.7	3.7

( ) = negative number